

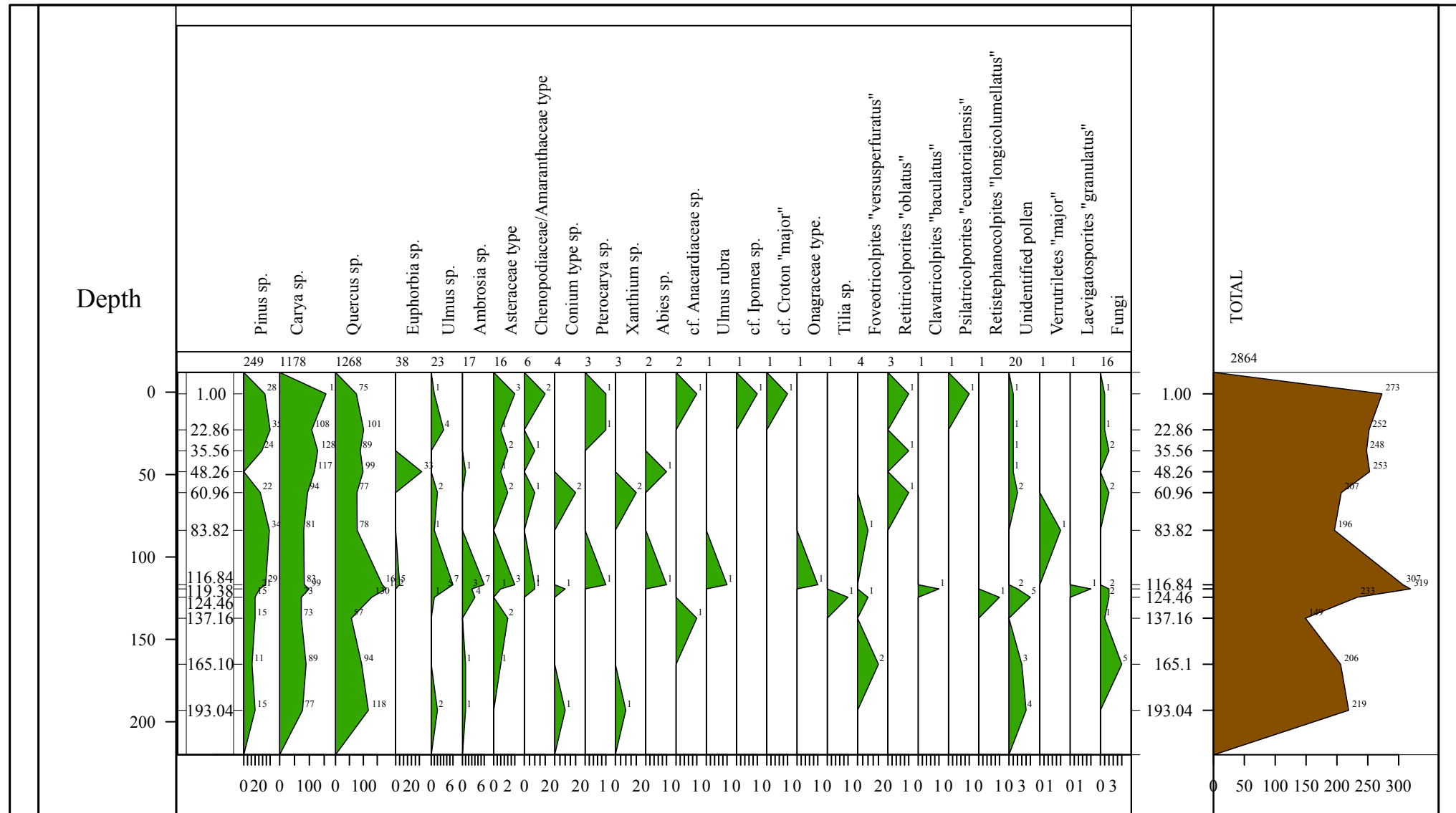
ELEPHANT PIT - Gray Fossil Site

Coordinates: 914088.552/233346.225

Elevation: 500.865 m

Samples: 12

Total of 2864 items counted; average 205 per sample



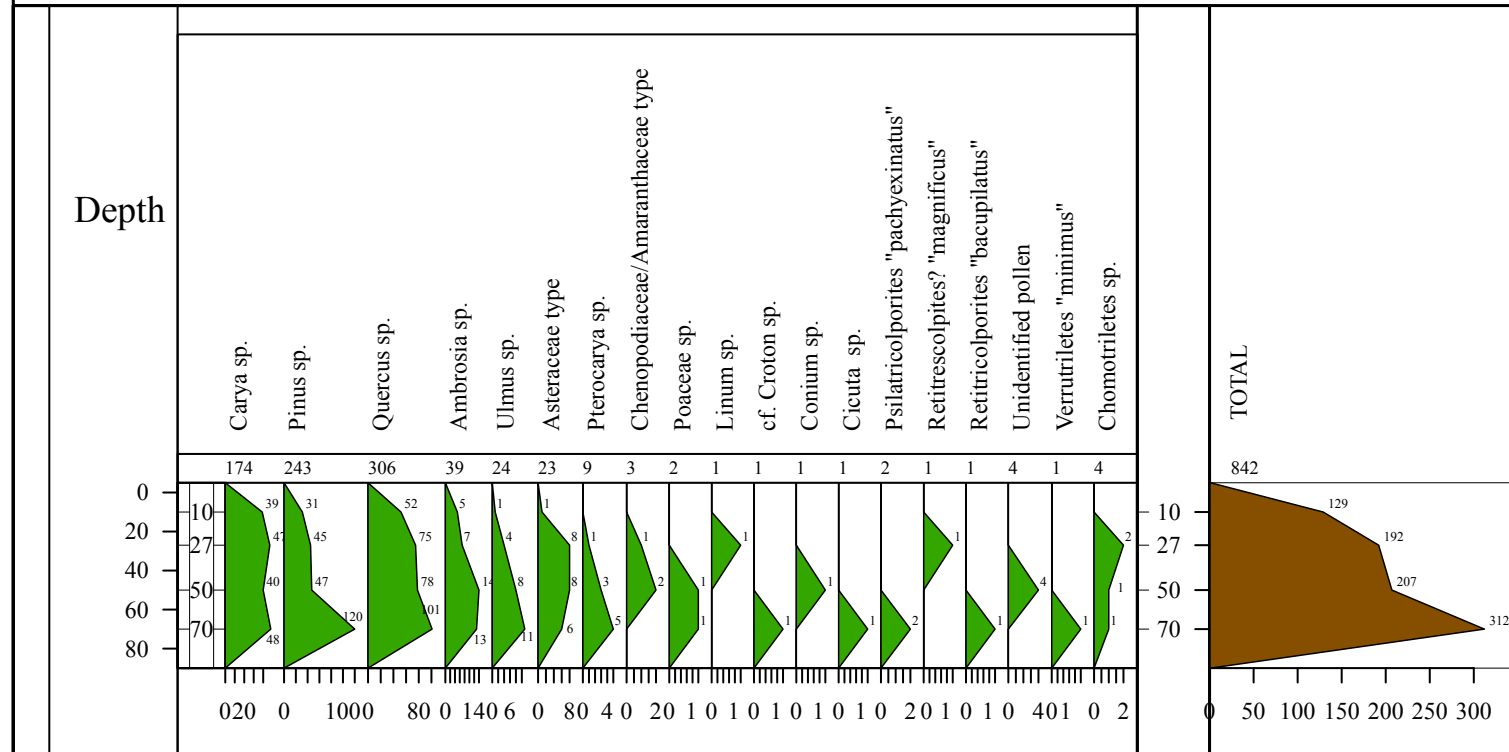
MID PIT - Gray Fossil Site

UTM Coordinates: 914075.779 / 233373.305

Elevation: 499.948 m

Samples: 4

Total of 842 items counted; average 140 per sample



Modern Sites Extracted From the North American Pollen Database

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
1	USGS Gage 76	25.800	-80.483	0	189	23.86	20.70	1438
3	Taylor Slough Site 2	25.206	-80.644	6	298	23.78	20.50	1430
5	Taylor Slough Site 14	25.213	-80.736	6	158	23.79	20.50	1414
6	Loop Road Site 3	25.279	-80.795	3	334	23.78	20.43	1407
7	Taylor Slough Site 7	25.287	-80.646	5	203	23.76	20.50	1439
8	Loop Road Site 2	25.319	-80.799	2	270	23.73	20.40	1414
9	Loop Road Site 1	25.319	-80.795	3	166	23.73	20.40	1415
11	Site 62 [Reigel 1965]	25.436	-80.967	1	208	23.65	20.27	1393
12	Site 60 [Reigel 1965]	25.451	-80.883	1	298	23.65	20.27	1419
14	Site 37 [Reigel 1965]	25.507	-80.767	3	176	23.57	20.13	1457
15	Site 37 [Reigel 1965]	25.507	-80.767	3	167	23.57	20.13	1457
17	Site 35 [Reigel 1965]	25.508	-80.85	3	146	23.57	20.17	1434
20	Site 31 [Reigel 1965]	25.583	-80.767	3	137	23.52	20.10	1465
22	Site 28 [Reigel 1965]	25.611	-80.700	3	121	23.52	20.10	1481
23	Site 27 [Reigel 1965]	25.622	-80.717	3	151	23.52	20.10	1477
24	Site 26 [Reigel 1965]	25.631	-80.733	3	131	23.52	20.10	1473
25	Site 33 [Reigel 1965]	25.650	-80.767	3	161	23.50	20.07	1463
26	Site 29 [Reigel 1965]	25.653	-81.017	3	101	23.47	19.97	1402
29	USGS Gage 34	25.869	-80.485	6	162	23.79	20.40	1459
33	CA315 (AAS)	25.974	-80.669	5	252	23.48	19.93	1464
34	Fak-Mowen prairie	25.975	-81.366	2	251	23.24	19.53	1357
35	Fak-Pine dome	25.978	-81.374	2	291	23.24	19.53	1356
36	Fak-Ballard's pond	26.014	-81.399	2	160	23.22	19.47	1355
37	WCA 3A Site 3-4-4	26.036	-80.469	6	283	23.72	20.23	1489
39	WCA 3A Site 3-4-1	26.167	-80.469	5	237	23.55	20.03	1497
41	USGS Gage 62	26.174	-80.751	5	171	23.19	19.50	1441
42	USGS Gage 63	26.189	-80.531	6	294	23.44	19.87	1483
43	WCA 3A Site 3-4-2	26.190	-80.523	6	347	23.44	19.87	1484
44	Site 24 [Jensen 1998]	26.251	-80.389	7	195	23.53	20	1517
45	Site 6 [Jensen 1998]	26.261	-80.333	2	200	23.63	20.10	1532
46	Site 6 [Jensen 1998]	26.261	-80.333	2	199	23.63	20.10	1532
47	Site 7 [Jensen 1998]	26.275	-80.324	5	200	23.63	20.10	1530
48	Site 21 [Jensen 1998]	26.276	-80.357	5	183	23.58	20.03	1521
49	Site F1	26.282	-80.307	6	307	23.64	20.10	1536
50	Site U3	26.288	-80.411	5	173	23.49	19.87	1505
51	Site 14 [Jensen 1998]	26.289	-80.379	5	201	23.53	19.97	1513
52	Site 22 [Jensen 1998]	26.296	-80.356	5	215	23.54	20	1518
53	Site 15 [Jensen 1998]	26.302	-80.386	5	186	23.51	19.93	1509
54	Site 23 [Jensen 1998]	26.306	-80.369	4	231	23.53	19.97	1515
55	Site 8 [Jensen 1998]	26.307	-80.315	7	385	23.60	20.07	1524
56	Site 20 [Jensen 1998]	26.308	-80.358	2	199	23.53	19.97	1516
57	Site 31 [Jensen 1998]	26.311	-80.343	6	275	23.56	20	1520
58	Site 16 [Jensen 1998]	26.313	-80.385	4	628	23.50	19.90	1506
59	Site 25 [Jensen 1998]	26.313	-80.373	6	246	23.51	19.93	1510
60	Site 9 [Jensen 1998]	26.314	-80.314	7	258	23.60	20.07	1525
61	Site 30 [Jensen 1998]	26.321	-80.326	5	127	23.58	20.03	1522
62	Site 17 [Jensen 1998]	26.325	-80.369	5	232	23.51	19.93	1510
63	Site 26 [Jensen 1998]	26.326	-80.379	6	235	23.48	19.87	1507

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
64	Site 29 [Jensen 1998]	26.331	-80.304	6	158	23.59	20.03	1525
65	Site 19 [Jensen 1998]	26.333	-80.366	6	240	23.50	19.90	1508
66	Site 27 [Jensen 1998]	26.334	-80.378	6	247	23.48	19.87	1505
69	Site 18 [Jensen 1998]	26.341	-80.337	5	270	23.53	19.93	1514
70	Site 13 [Jensen 1998]	26.342	-80.338	6	258	23.52	19.93	1514
71	Site 13 [Jensen 1998]	26.342	-80.338	6	226	23.52	19.93	1514
72	Site 11 [Jensen 1998]	26.343	-80.304	8	114	23.59	20.03	1525
73	Site 12 [Jensen 1998]	26.348	-80.320	6	173	23.58	20	1518
74	Site 4 [Jensen 1998]	26.351	-80.340	8	272	23.51	19.93	1512
76	Site 3 [Jensen 1998]	26.354	-80.346	6	222	23.51	19.93	1511
77	Site 28 [Jensen 1998]	26.359	-80.378	5	423	23.45	19.83	1502
78	Site 2 [Jensen 1998]	26.359	-80.366	8	257	23.46	19.83	1504
79	Site 1 [Jensen 1998]	26.359	-80.353	7	255	23.48	19.87	1509
80	Rotenberger Site 1	26.363	-80.849	7	141	22.94	19.10	1402
81	USGS Gage 15	26.387	-80.381	8	268	23.42	19.73	1494
82	EPA Site 7	26.481	-80.416	9	263	23.26	19.53	1461
83	Loxahatchee Site 1	26.517	-80.339	8	237	23.34	19.63	1479
84	Loxahatchee Site 4	26.523	-80.342	9	255	23.33	19.63	1476
86*	SESSLAAF	27.206	-81.350	37	342	22.54	18.13	1306
87*	LKANNIE	27.207	-81.35	37	324	22.54	18.13	1305
88*	Buck Lake	27.234	-81.332	45	319	22.53	18.07	1302
89*	Lake Tulane	27.583	-81.500	34	453	22.48	17.83	1272
90*	Scott Lake	27.967	-81.95	51	298	22.43	17.50	1231
91*	917	27.967	-81.95	65	617	22.43	17.50	1234
92*	SESSCLF	27.967	-81.95	51	331	22.43	17.50	1231
94	Mud Lake Site C	29.29	-81.87	14	369	20.98	15.40	1321
95	Mud Lake Site A	29.30	-81.87	14	304	20.97	15.40	1319
96*	Mud Lake Site D	29.30	-81.87	15	418	20.96	15.40	1320
97*	Mud Lake [Florida]	29.30	-81.867	15	339	20.97	15.40	1320
98*	915MUD	29.30	-81.867	21	320	20.93	15.33	1323
99*	Mud Lake Site B	29.30	-81.85	34	310	20.91	15.30	1326
100*	Sheelar Lake	29.517	-82.00	51	993	20.60	14.70	1331
101*	Site 72 [Delcourt]	29.67	-91.03	1	400	20.11	13.37	1614
102*	Site 71 [Delcourt]	29.78	-91.53	1	468	20.03	13.20	1600
103*	Site 73 [Delcourt]	29.78	-90.52	3	503	20.15	13.37	1614
104*	Site 76 [Delcourt]	29.88	-89.98	8	511	20.37	13.53	1568
105*	Site 69 [Delcourt]	29.93	-94.28	3	330	20.33	13.23	1401
106*	Site 91 [Delcourt]	30.11	-94.40	14	402	20.18	12.90	1383
107*	Site 64 [Delcourt]	30.13	-93.72	2	369	20	12.70	1411
108*	Site 77 [Delcourt]	30.20	-90.42	1	395	19.85	12.80	1606
109*	Camel Lake	30.267	-85.017	20	632	19.64	12.80	1457
110*	Site 78 [Delcourt]	30.30	-89.83	6	444	19.66	12.67	1576
111*	Site 70 [Delcourt]	30.34	-91.72	3	375	19.86	12.67	1546
112	Site 13 [Delcourt]	30.38	-86.25	7	547	19.55	12.60	1494
113	Site 75 [Delcourt]	30.47	-90.42	8	478	19.58	12.33	1613
114	Site 63 [Delcourt]	30.50	-92.83	6	401	19.54	12.07	1468
115*	Lake Hall	30.522	-84.249	40	313	19.57	12.53	1511
116*	Torreya State Park Site C	30.54	-84.90	69	403	19.32	12.27	1464
117*	Torreya State Park A	30.55	-84.93	76	317	19.30	12.27	1462
118*	Torreya State Park Site B	30.57	-84.95	46	330	19.42	12.37	1442
119*	Barchampe Lake	30.622	-83.254	34	525	19.96	13.23	1315
120*	Langdale Pond	30.642	-83.195	58	768	19.73	12.87	1326
121*	Site 14 [Delcourt]	30.71	-87.33	52	809	19.03	11.93	1589

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
122*	Lake Louise	30.725	-83.258	49	1661	19.68	12.80	1308
123*	Site 16 [Delcourt]	30.80	-88.35	43	415	19.43	12.07	1579
124	Site 66 [Delcourt]	30.82	-85.37	40	384	19.15	11.93	1414
125	SESS128	30.846	-81.933	6	450	19.62	12.83	1305
126*	Site 15 [Delcourt]	31.02	-87.63	61	646	18.68	11.33	1603
127*	Sheley Pond	31.081	-81.637	6	505	19.68	12.93	1306
128*	Site 88 [Delcourt]	31.10	-88.77	38	372	19.05	11.50	1565
129*	Site 18 [Delcourt]	31.14	-90.20	130	754	18.64	11.07	1608
130*	Site 31 [Delcourt]	31.21	-82.85	61	418	18.91	11.63	1254
131*	Site 17 [Delcourt]	31.29	-89.6	99	494	18.98	11.20	1542
132*	Site 30 [Delcourt]	31.40	-83.33	94	723	18.58	11.10	1232
133*	Site 62 [Delcourt]	31.51	-93.57	88	368	18.66	10.53	1248
134*	Site 19 [Delcourt]	31.55	-91.20	110	1527	18.53	10.90	1515
135	Goshen Springs	31.721	-86.134	105	516	18.07	10.30	1390
136*	Site 32 [Delcourt]	31.75	-81.38	5	439	19.28	12.20	1255
137*	Site 67 [Delcourt]	31.79	-85.88	152	362	17.90	10.13	1380
138*	SESS203	31.817	-94.20	107	368	18.33	10	1175
139*	Site 29 [Delcourt]	31.83	-84.22	94	801	18.28	10.53	1229
140*	Site 20 [Delcourt]	32.14	-91.23	23	428	18.08	9.97	1341
141*	Site 65 [Delcourt]	32.24	-81.68	21	444	18.90	11.57	1204
142*	Site 68 [Delcourt]	32.28	-86.77	56	690	18.19	10.13	1365
143*	Site 21 [Delcourt]	32.30	-90.87	43	963	18.12	10	1352
144*	Site 89 [Delcourt]	32.32	-89.68	122	451	17.44	9.30	1452
145	Site 33 [Delcourt]	32.40	-82.30	64	1648	18.28	10.77	1168
146	Site 90 [Delcourt]	32.43	-88.03	15	402	17.94	9.67	1391
147*	Rayburn's Dome	32.467	-93.167	61	194	17.89	9.47	1251
148*	Site 59 [Delcourt]	32.49	-94.37	91	387	17.72	9.17	1195
149*	Site 57 [Delcourt]	32.53	-92.33	46	357	17.78	9.23	1331
150*	Site 58 [Delcourt]	32.58	-93.20	91	376	17.73	9.23	1226
151	Site 11 [Delcourt]	32.58	-87.67	30	618	17.89	9.63	1397
152*	Site 36 [Delcourt]	32.62	-84.25	119	437	17.58	9.60	1218
153*	Site 28 [Delcourt]	32.79	-83.90	168	407	17.42	9.43	1189
154*	Site 60 [Delcourt]	32.87	-80.27	3	351	18	10.57	1287
155*	Site 50 [Delcourt]	32.93	-79.72	3	503	18.57	11.37	1299
156*	Site 56 [Delcourt]	33.01	-91.63	34	2145	17.58	8.83	1350
157	Site 48 [Delcourt]	33.06	-79.95	5	359	18.11	10.67	1291
158*	Site 55 [Delcourt]	33.11	-92.32	34	718	17.42	8.60	1301
159*	Site 10 [Delcourt]	33.17	-87.35	123	692	17.08	8.60	1397
160*	Site 47 [Delcourt]	33.21	-80.37	15	343	17.53	9.90	1261
161*	Site 54 [Delcourt]	33.37	-93.48	94	347	17.23	8.33	1264
162*	Site 34 [Delcourt]	33.46	-82.68	168	402	16.65	8.63	1202
163*	Site 53 [Delcourt]	33.48	-94.42	105	1009	17	8.03	1167
164*	Site 22 [Delcourt]	33.52	-90.15	40	859	17.47	8.60	1349
165*	Site 23 [Delcourt]	33.543	-89.23	134	695	16.43	7.77	1438
166	Site 35 [Delcourt]	33.55	-83.25	149	593	16.74	8.60	1203
167*	Site 46 [Delcourt]	33.55	-81.82	61	364	17.54	9.50	1205
168*	BL-Tombigbee	33.563	-88.474	49	163	16.98	8.33	1410
169*	SESSCPA	33.567	-86.533	204	324	16.10	7.70	1397
170*	Site 74 [Delcourt]	33.61	-85.82	198	346	16.11	7.80	1374
171*	Site 49 [Delcourt]	33.72	-78.88	6	417	17.52	9.90	1311
172	Site 24 [Delcourt]	33.78	-88.68	76	520	16.79	8.10	1420
173*	Clear Pond [SC]	33.799	-78.954	10	433	17.48	9.80	1300
174	Site 8 [Delcourt]	33.90	-84.22	305	442	15.88	7.60	1292

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
175*	Site 9 [Delcourt]	34.10	-86.12	305	452	15.03	6.63	1463
176	Site 25 [Delcourt]	34.15	-88.72	84	450	16.32	7.43	1411
177*	White Pond1	34.167	-80.775	90	326	16.16	7.97	1180
179*	Site 27 [Delcourt]	34.26	-90.28	46	480	16.38	7.17	1372
180	Site 26 [Delcourt]	34.31	-89.30	146	516	15.65	6.80	1442
181*	709BBPG	34.317	-84.867	224	398	15.25	6.70	1366
182*	SESSQPG	34.325	-84.867	285	702	15.02	6.50	1385
183*	Site 7 [Delcourt]	34.39	-83.23	251	527	15.99	7.87	1395
184*	Ferndale Bog	34.406	-95.808	263	285	16.23	6.70	1105
185	Ferndale Bog	34.406	-95.808	263	405	16.23	6.70	1105
186*	Site 45 [Delcourt]	34.50	-79.33	41	478	16.78	8.63	1179
187*	Site 51 [Delcourt]	34.51	-93.27	175	479	16.51	7.20	1310
188	Site 6 [Delcourt]	34.53	-82.82	192	1083	16.40	8.10	1282
189*	Site 52 [Delcourt]	34.54	-92.68	131	268	16.62	7.27	1270
190*	Singletary Lake [Site 2]	34.59	-78.47	18	1692	16.76	8.80	1276
191*	Singletary Lake [Site 2]	34.59	-78.47	18	1957	16.76	8.80	1276
192*	Singletary Lake [Site 1]	34.6	-78.47	18	2819	16.73	8.73	1275
193*	SINGTOTL	34.6	-78.467	18	6266	16.73	8.73	1275
194	Site 79 [Delcourt]	34.63	-87.27	207	435	15.48	6.63	1411
195*	Site 5 [Delcourt]	34.63	-81.92	183	555	16.08	7.73	1228
196*	White Lake	34.65	-78.50	20	2257	16.64	8.63	1265
197*	Natural Lake	34.663	-95.386	170	352	16.11	6.73	1320
198*	Jones Lake	34.68	-78.60	21	2797	16.59	8.53	1249
199*	Salters Lake	34.72	-78.63	22	1686	16.51	8.43	1239
200*	Site 87 [Delcourt]	34.73	-94.07	290	424	15.29	6	1297
201*	Site 44 [Delcourt]	34.73	-76.85	8	484	17.37	10.13	1377
202	Site 80 [Delcourt]	34.83	-91.48	67	495	16.05	6.47	1274
203*	GREAT	34.867	-77.041	11	200	17.20	9.70	1354
204*	Site 1 [Sheehan]	35.08	-83.53	1036	506	11.63	3.77	1913
205*	SESSMPT	35.15	-86.20	300	392	14.47	5.63	1489
206*	Site 81 [Delcourt]	35.17	-91.75	64	579	15.93	6.23	1259
207*	Site 82 [Delcourt]	35.18	-92.72	113	346	16.01	6.43	1183
208*	Site 86 [Delcourt]	35.23	-94.33	150	504	15.78	5.97	1174
209*	Site 16 [Delcourt]	35.23	-80.72	244	550	15.28	6.87	1155
210*	Site 5 [Delcourt]	35.396	-85.161	472	497	13.81	5.07	1425
211	SESS76A	35.42	-85.92	335	534	14.56	5.67	1435
212	Site 1 [Delcourt]	35.48	-89.27	61	1446	15.69	6.20	1311
213*	Site 11 [Delcourt]	35.55	-83.32	716	351	12.06	3.83	1579
214*	Site 9 [Delcourt]	35.563	-83.498	2025	772	7.12	0	1920
215*	Site 12 [Delcourt]	35.572	-83.181	1622	456	8.63	1.17	1724
216	Site 1 [Cridlebaugh]	35.58	-84.20	244	574	14.46	5.60	1317
217	Tuskegee Pond	35.585	-84.211	240	690	14.46	5.60	1313
218	Site 1 [Davidson]	35.590	-83.830	524	319	13.80	5.10	1442
219*	Site 10 [Delcourt]	35.594	-83.4727	1768	351	8.08	0.70	1844
220*	Site 7 [Delcourt]	35.60	-83.80	549	685	13.73	5	1445
221*	SHEPARD	35.60	-76.946	15	181	15.94	8.17	1280
222*	Site 8 [Delcourt]	35.6112	-83.425	1538	361	8.64	1.10	1784
223	Black Pond	35.621	-84.187	262	517	14.35	5.47	1309
224*	Site 13 [Delcourt]	35.63	-82.18	457	592	14.64	6.27	1243
225	Site 15 [Delcourt]	35.72	-81.47	335	505	14.70	6.30	1237
226*	Site 14 [Delcourt]	35.73	-81.78	351	533	14.64	6.27	1306
227	Site 41 [Delcourt]	35.77	-79.15	122	374	14.93	6.53	1156
228*	Site 83 [Delcourt]	35.78	-93.80	183	524	14.98	5.50	1272

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
229	Site 2 [Delcourt]	35.80	-88.63	122	521	14.76	5.33	1338
230*	SAWYER	35.844	-75.90	2	200	16	8.80	1294
231	Site 2 [Delcourt]	35.90	-87.78	168	407	14.19	4.97	1393
232*	Site 42 [Delcourt]	35.91	-78.55	64	518	14.92	6.43	1136
233*	Site 43 [Delcourt]	35.94	-76.53	3	414	15.75	8.20	1265
234	Site 3 [Delcourt]	35.95	-87.55	244	378	14.11	4.90	1395
235*	Site 39 [Delcourt]	36.01	-78.03	64	405	14.58	6.17	1167
236	Site 3 [Delcourt]	36.02	-87.98	110	763	14.34	4.93	1368
237	Site 4 [Delcourt]	36.02	-83.42	305	334	13.98	4.97	1188
238	Site 17 [Delcourt]	36.03	-88.27	137	583	14.40	4.97	1354
239*	Anderson Pond	36.033	-85.50	305	532	13.90	4.93	1390
240*	SESS141	36.067	-79.50	215	615	14.35	5.83	1128
241	Site 4 [Delcourt]	36.08	-86.30	213	493	14.38	5.20	1331
242*	Site 84 [Delcourt]	36.10	-93.73	427	502	14.44	4.97	1161
243*	Site 37 [Delcourt]	36.11	-80.17	268	430	14.26	5.63	1110
244*	Rockyhock Bay1	36.167	-76.683	6	282	15.46	7.70	1224
245	Site 6 [Delcourt]	36.23	-84.10	305	318	13.77	4.70	1337
246*	Site 85 [Delcourt]	36.43	-94.07	396	478	14.29	4.57	1129
247*	Site 40 [Delcourt]	36.43	-77.63	30	443	14.55	5.97	1132
248*	Norfolk Lake	36.58	-92.28	244	302	13.51	3.53	1143
249*	Dismal Swamp [1]	36.583	-76.45	6	671	15.33	7.40	1149
250*	Powers Fort Swale	36.60	-90.583	91	656	14.23	4.10	1203
251*	CCR115WP	36.75	-91.67	300	329	12.81	2.70	1126
252*	Site 129 [Peterson 1978]	36.78	-86.83	198	300	13.93	4.33	1261
253*	710 Philpott Lake (Reservoir)	36.78	-80.05	300	280	13.68	5.17	1113
254*	Cupola Pond	36.80	-91.10	244	488	13.07	2.97	1154
255*	Site 1 [Delcourt]	36.90	-89.53	99	1326	14.52	4.37	1212
256*	Site 1 [Hall 1977]	36.92	-95.97	210	298	14.32	3.60	983
257*	Lake Wappapello	36.92	-90.30	152	313	13.63	3.53	1175
258*	711	37.083	-79.40	153	253	14.15	5.37	1051
259*	Site 128 [Peterson 1978]	37.15	-86.10	213	284	13.38	3.80	1300
260	Site 127 [Peterson 1978]	37.15	-85.95	213	287	13.33	3.80	1306
261*	Site 126 [Peterson 1978]	37.22	-85.72	198	288	13.28	3.70	1315
262*	Lake Girardeau	37.28	-89.83	152	338	13.45	3.30	1187
263*	McDaniel Lake	37.30	-93.30	335	302	13.31	3.13	1097
264	Site 130 [Peterson 1978]	37.32	-87.22	152	307	13.71	3.87	1228
265*	Site 131 [Peterson 1978]	37.35	-87.47	122	304	13.81	3.80	1207
266*	403	37.360	-80.534	1200	261	8.30	-0.10	1136
267*	Jackson Pond	37.45	-85.717	212	527	13.15	3.43	1271
268*	712	37.533	-78.267	91	224	13.23	4.43	1060
269	Site 123 [Peterson 1978]	37.55	-85.73	221	306	13.02	3.33	1246
270*	Site 133 [Peterson 1978]	37.60	-87.58	137	310	13.64	3.50	1174
271*	Potts Mountain Pond	37.601	-80.139	1090	332	9.43	0.77	1087
272*	810	37.617	-81.10	983	225	10.23	1.70	1053
273*	Happy Hollow Lake	37.67	-88.85	137	277	13.54	3.27	1172
274*	Crab Orchard Lake	37.75	-89.12	137	315	13.24	2.93	1148
275*	Site 132 [Peterson 1978]	37.80	-87.53	152	295	13.33	3.27	1166
276*	Lake Pomme de Terre	37.88	-93.33	320	365	12.96	2.43	1057
277*	Lake Nevin	37.92	-87.67	137	306	13.14	2.97	1143
278*	404-HACK	37.983	-79.00	451	301	12.15	3.37	1013
279*	Hack Pond	37.985	-78.997	469	304	12.08	3.30	1012
280*	Quarles Pond	37.996	-79.072	500	366	11.89	3.13	1010
281*	405	38.00	-79.067	451	300	12.07	3.30	1001

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
282*	Browns Pond	38.155	-79.616	620	398	10.58	1.80	1092
283*	Cranberry Glades	38.20	-80.283	1029	326	9.33	0.53	1361
284*	Lake of the Ozarks	38.22	-92.63	244	305	13.01	2.37	1002
285	713	38.533	-77.467	4	394	13.44	4.40	1009
286	Centralia Lake	38.57	-89.00	152	327	12.32	1.70	1025
287*	Ohio River flood plain	38.677	-83.134	288	126	11.63	2.23	1086
288*	Shawnee State Forest	38.697	-83.171	170	222	12.20	2.60	1095
289*	Seminary School Basin	38.898	-89.179	165	494	12.24	1.57	974
290	Pittsburg Basin	38.904	-89.188	162	497	12.25	1.57	973
291*	East Fork old field	39.016	-84.139	262	137	11.85	2.07	1053
292	Dolly Sods	39.045	-79.344	1204	386	7.07	-1.67	1330
293*	Canaan Mountain	39.10	-79.60	1120	643	7.08	-1.63	1384
294*	Fort Hill pond	39.117	-83.402	265	258	11.37	1.70	1052
295*	Canaan Valley	39.126	-79.383	950	574	7.87	-0.90	1313
296	Beaver Dam Lake	39.22	-89.97	168	308	12.17	1.27	964
297*	Scioto Trail State Forest	39.231	-82.966	199	361	11.43	1.77	1015
298*	Lake Ellensmere	39.354	-83.01	197	247	11.38	1.60	1007
300*	Backyard pond	39.373	-82.955	224	174	11.18	1.50	1005
303*	Fort Ancient pond	39.405	-84.087	273	192	11.37	1.40	992
305*	Fort Ancient Helianthus	39.406	-84.088	272	127	11.37	1.40	992
306*	North Fort pond	39.407	-84.086	273	114	11.37	1.40	992
307*	Paradise Lake [Illinois]	39.42	-88.43	213	299	11.63	0.80	989
308*	Hocking State Forest	39.457	-82.580	268	197	11.05	1.37	994
309*	Swallow Falls	39.494	-79.417	713	196	8.74	-0.10	1207
310*	Muscotah Marsh	39.53	-95.513	280	462	12.26	0.67	958
311*	MUSCOTAH	39.533	-95.517	320	1430	12.24	0.60	923
312*	BUCKLEB	39.567	-79.267	814	810	8.70	-0.23	1192
313	Hueston Woods	39.598	-84.761	279	47	10.78	0.67	997
314*	Stage's Pond	39.618	-82.938	212	275	10.90	1.10	963
315*	Jacksonville Lake	39.67	-90.22	183	303	10.98	-0.03	963
316*	Ohio golf course pond	39.678	-82.972	209	127	10.95	1.10	959
317	PINBAR01	39.717	-74.50	27	990	11.58	2.90	1113
318*	Lake Springfield	39.72	-89.58	171	314	11.50	0.43	937
319*	Big Pond	39.767	-78.55	634	356	9.18	-0.20	1047
321*	Wegerzyn garden forest	39.813	-84.215	237	142	11.08	0.87	928
322*	Decatur Lake	39.83	-88.92	198	317	11.43	0.37	984
323*	Site 110 [Peterson 1978]	39.95	-90.22	183	328	10.78	-0.40	972
324*	Crider's Pond	39.967	-77.55	290	314	10.36	0.90	1035
325	406	40.067	-76.90	119	395	11.28	1.77	1030
326	ICLA371	40.067	-75.833	183	330	11	1.70	1164
327	Fudger Lake	40.10	-83.533	320	282	9.81	-0.23	969
328	407	40.117	-78.633	311	186	10.81	1.33	1021
329	K19 [RO Kapp 1965]	40.12	-94.07	274	609	10.58	-1.23	898
330	Lake Vermilion	40.17	-87.65	198	309	11.07	0.23	1005
331	Stotzel-Leis Site	40.217	-84.689	309	480	9.72	-0.57	942
332	302	40.217	-82.50	255	307	10.28	0.43	955
333	LAIP372	40.233	-75.533	91	321	11.53	2.17	1140
334	KNIL373	40.333	-75.483	91	350	11.38	2.03	1155
335	Silver Lake [Ohio]	40.35	-83.80	332	354	9.63	-0.50	952
336	TORRENS	40.35	-82.467	302	392	9.98	0.13	962
337	Helmetta Bog	40.383	-74.433	15	397	11.53	2.50	1178
338	Szabo Pond	40.40	-74.483	29	342	11.42	2.37	1180
339	POVA374	40.45	-75.517	152	361	10.86	1.47	1159

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
340	LONGSWMP	40.483	-75.667	192	337	10.46	1	1147
341	Lake Wee-ma-tuk	40.55	-90.17	198	300	10.43	-1.13	960
342	DEER370	40.617	-76.05	152	399	9.92	0.50	1119
343	Lake Bloomington	40.65	-88.93	219	300	10.23	-1.17	933
344	BROWNSLK	40.683	-82.05	290	234	9.49	-0.20	951
345	Panther Run Pond	40.791	-77.508	634	300	8.62	-0.87	1008
346	Bucyrus Bog	40.797	-82.933	318	416	9.28	-0.60	962
347	LAKP376	40.817	-76.05	274	406	9.41	0.13	1138
348	Site 65 [Swain]	40.83	-76.37	366	452	8.78	-0.63	1097
349	Site 71 [Swain]	40.842	-75.798	300	336	9.13	-0.23	1126
350	Forge Pond	40.855	-74.398	70	217	10.49	1.30	1255
351	ALPINE	40.95	-73.9	30	930	11.29	2.20	1169
352	K18 [RO Kapp 1965]	40.98	-93.75	346	488	9.66	-2.37	868
353	Kinnelon	40.98	-74.42	244	312	9.18	0	1285
354	Green Pond [NJ]	41.00	-74.50	292	345	8.88	-0.37	1286
355	Woodcliff Lake	41.02	-74.03	29	489	11.17	1.93	1195
356	Tannersville Bog	41.038	-75.267	277	343	9.56	-0.03	1205
357	Site 73 [Swain]	41.05	-75.93	335	402	8.77	-0.47	1106
358	Vreeland Pond	41.05	-74.25	194	493	9.89	0.60	1233
359	Swartswood Pond	41.07	-74.83	150	381	10.06	0.67	1235
361	Site 64 [Swain]	41.12	-76.523	152	302	9.38	-0.03	1028
362	Fresh Pond	41.158	-71.575	28	438	10.10	2.10	1212
363	Site 74 [Swain]	41.18	-75.75	457	322	8.23	-1.10	1085
364	East Twin Lake [Ohio]	41.199	-81.333	322	482	9.36	-0.30	981
365	Round Lake [US:In]	41.23	-86.63	216	468	9.54	-1.10	959
366	Spruce Pond	41.239	-74.204	223	311	10.01	0.67	1227
367	Mioxes Pond	41.25	-70.133	3	356	10.31	3.37	1058
368	Sheep Pond	41.258	-70.183	3	347	10.31	3.37	1058
369	Clark's Cove	41.258	-70.167	3	319	10.31	3.37	1058
370	SILK379	41.274	-76.082	360	350	8.44	-0.90	1022
371	Millbrook Road Pond	41.275	-70.133	6	342	10.31	3.37	1058
372	Donut Pond Bog	41.275	-70.058	4	352	10.31	3.37	1058
373	Taupawshas Bog	41.275	-70.058	14	528	10.31	3.37	1061
374	South Pout Pond	41.275	-70.05	6	369	10.31	3.37	1058
375	Wigwam Pond	41.275	-70.017	6	321	10.31	3.37	1058
376	No Bottom Pond	41.283	-70.208	6	465	10.31	3.37	1061
377	Raylene's Bog	41.283	-70.017	9	408	10.31	3.37	1061
378	North Raylene's Bog	41.283	-70.017	9	415	10.31	3.37	1061
379	Almanac Pond	41.283	-70.80	9	366	10.31	3.37	1061
380	Hidden Forest	41.292	-70.80	6	311	10.31	3.37	1061
381	Site 63 [Swain]	41.30	-76.58	305	338	8.75	-0.63	1023
382	Medouie Creek	41.308	-70.017	3	370	10.31	3.37	1058
383	Squam	41.308	-708.0	6	293	10.31	3.37	1061
384	Cedar Bog	41.331	-74.658	440	900	8.37	-1.23	1184
385	ROGERSLK	41.333	-72.30	91	1012	9.63	1.13	1210
386	812	41.35	-76.317	616	390	7.08	-2.27	1070
387	Sutherland Pond	41.391	-74.038	380	349	8.80	-0.87	1177
388	Ladd Lake	41.417	-84.75	249	286	9.14	-1.17	924
389	Site 106 [Swain]	41.45	-71.95	29	313	9.91	1.57	1217
390	MV5	41.45	-70.583	6	217	10.32	2.63	1155
391	Lantern Hill Pond	41.46	-71.95	36	413	9.87	1.50	1219
392	Site 62 [Swain]	41.484	-77.029	330	498	8.08	-1.17	940
393	Pasacaco Pond	41.517	-71.45	3	257	10.35	2.07	1154

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
394	Site 61 [Swain]	41.52	-76.60	427	413	8.13	-1.13	992
395	813	41.55	-78.60	418	268	8.08	-1.23	1069
396	Site 85 [Swain]	41.55	-74.07	138	337	9.41	-0.20	1096
397	Pretty Lake	41.583	-85.25	294	469	9.08	-1.23	906
398	JENP364	41.583	-76.167	335	363	8.33	-1.03	976
399	Site 76 [Swain]	41.60	-75.75	335	307	8.73	-0.70	997
400	Fresh Pond-Ma	41.60	-70.53	6	273	9.97	2.17	1176
401	TWIN356	41.617	-78.75	518	373	7.70	-1.60	1109
402	Howes Prairie Marsh	41.65	-87.072	185	299	9.58	-1.07	955
403	Clear Lake	41.65	-86.53	244	350	9.51	-0.93	1006
404	Lovells Pond	41.65	-70.43	12	310	9.78	2.10	1164
405	Hudson Lake	41.67	-86.53	239	429	9.53	-0.93	1006
406	Spring Lake	41.674	-76.35	342	308	8.08	-1.27	950
407	Carbuncle Pond	41.698	-71.773	104	295	9.51	0.83	1236
408	Spectacle Pond	41.70	-70.45	20	264	9.67	1.90	1174
409	Garretts Pond	41.70	-70.35	12	236	9.73	2.10	1154
410	Elishas Pond	41.70	-70.22	6	387	9.81	2.33	1127
411	Andrews Pond	41.70	-70.08	9	248	9.85	2.57	1096
412	Site 55 [Swain]	41.72	-77.77	518	341	7.36	-1.83	931
413	Site 53 [Swain]	41.73	-78.42	518	318	7.59	-1.60	1051
414	Site 57 [Swain]	41.73	-77.30	457	322	6.90	-2.27	853
415	Site 51 [Swain]	41.75	-79.17	457	364	8.02	-1.27	1136
416	ELYLAKE	41.767	-75.833	385	306	8.05	-1.40	1039
417	Site 108 [Swain]	41.77	-76.58	399	367	8.09	-1.20	907
418	Flax Pond	41.77	-70.02	9	225	9.87	2.63	1092
419	Site 77 [Swain]	41.78	-75.53	610	318	7.31	-2.17	1093
420	Mashapaug Pond	41.783	-71.433	12	311	10.06	1.33	1166
421	HUYK8328	41.80	-84.983	300	538	8.87	-1.33	909
422	Mohawk Pond1	41.817	-73.283	360	528	7.66	-1.80	1213
423	Mohawk Pond2	41.817	-73.283	360	475	7.66	-1.80	1213
424	Site 54 [Swain]	41.83	-77.95	579	362	6.67	-2.57	986
425	Herring Pond	41.83	-70.00	2	239	9.87	2.63	1089
426	DUCKPOND	41.833	-70.00	2	317	9.87	2.63	1089
427	BECL360	41.867	-77.50	549	347	6.78	-2.40	885
428	Site 107 [Swain]	41.87	-71.90	77	325	9.33	0.33	1207
429	Site 58 [Swain]	41.88	-76.72	457	382	7.42	-1.87	911
430	Site 121 [Swain]	41.88	-74.08	61	402	8.93	-0.77	1063
431	College Pond	41.88	-70.65	30	239	9.88	1.67	1214
432	Site 59 [Swain]	41.90	-76.23	457	373	7.91	-1.47	953
433	STAR201	41.90	-75.333	413	300	8.02	-1.37	1083
434	Rose Lake	41.917	-77.925	690	467	6.20	-3.03	998
435	Lake Erie	41.92	-82.76	168	570	9.19	-0.53	890
436	MAPLE	41.933	-74.767	640	958	6.44	-2.97	1203
437	Duck Pond	41.933	-70.10	2	422	9.81	2.57	1085
438	Duck Pond	41.933	-70.10	2	242	9.81	2.57	1085
439	PLEA8260	41.95	-85.70	274	444	9.50	-0.87	912
440	ROUD8253	41.95	-84.283	320	373	8.61	-1.60	879
441	TITICUT1	41.958	-71.05	18	386	9.63	0.77	1178
442	TRIP200	41.967	-75.867	503	539	7.50	-1.97	1035
443	Winneconnet Pond	41.967	-71.117	20	237	9.63	0.70	1173
444	NUNKETS	41.967	-71.05	18	233	9.64	0.77	1175
445	Slide Mountain Site 2	41.999	-74.384	1282	596	2.98	-6.70	1306
446	North Pamet Bog Pond1	42.00	-70.03	3	283	9.79	2.47	1089

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
447	North Pamet Bog Pond2	42.00	-70.03	3	430	9.79	2.47	1089
448	Slide Mountain Site 1	42.21	-74.368	1128	549	3.73	-5.97	1288
449	OQUL404	42.017	-75.45	479	545	7.18	-2.23	1071
450	Colo Marsh	42.02	-93.27	329	459	8.86	-3.60	849
451	BALSAM	42.027	-74.603	756	904	6.15	-3.30	1237
452	Slide Mountain Site 3	42.033	-74.385	730	567	5.52	-4.03	1259
453	Slide Mountain Site 4	42.033	-74.374	480	591	6.68	-2.87	1236
454	Beach Forest Trail	42.07	-70.18	1	385	9.78	2.43	1088
455	CROO9164	42.083	-86.183	244	583	9.41	-0.77	910
456	Site 50 [Swain]	42.10	-78.75	427	345	7.14	-1.83	1126
457	LARKUM	42.167	-73.05	391	337	7.04	-2.57	1220
458	LEE9168	42.183	-85.117	280	355	9.18	-1.07	874
459	VANC9165	42.183	-84.417	306	416	8.68	-1.60	816
460	STJO405	42.20	-75.933	415	366	7.62	-1.90	972
461	NORL384	42.20	-74.05	649	382	7.40	-2.30	1150
462	SOUTH	42.2	-74.033	652	942	7.22	-2.50	1143
463	Site 81 [Swain]	42.22	-77.27	381	419	7.31	-1.77	848
464	Site 83 [Swain]	42.23	-77.98	533	367	6.51	-2.67	960
465	RUSH9163	42.233	-86.20	198	319	9.54	-0.53	873
466	Heart's Content Bog	42.242	-73.979	107	997	9.13	-0.57	1054
467	Belmont Bog1	42.25	-77.917	497	533	6.77	-2.43	947
468	Belmont Bog2	42.25	-77.917	497	842	6.77	-2.43	947
469	SPEL406	42.25	-76.50	309	357	8.06	-1.17	906
470	Site 80 [Swain]	42.25	-76.05	309	307	8.28	-1.17	940
471	Site 84 [Swain]	42.250	-78.290	471	327	6.50	-2.53	1024
472	Allenberg Bog	42.251	-78.883	494	2448	7.22	-1.77	1126
473	Hanover	42.27	-90.28	244	322	8.35	-3.50	911
474	Derinda	42.27	-90.08	244	251	8.10	-3.33	919
475	Greens Lake1	42.28	-73.88	77	390	8.63	-1.20	1011
476	Greens Lake2	42.28	-73.88	77	346	8.63	-1.20	1011
477	GREENWAT	42.284	-73.149	420	346	6.79	-2.80	1216
478	Woodbn25	42.30	-90.12	244	376	8.13	-3.37	916
479	Wardsg28	42.30	-89.93	274	310	7.86	-3.60	921
480	801	42.30	-72.30	120	704	8.69	-0.90	1130
481	LYON8254	42.317	-85.517	283	390	9.37	-0.97	915
482	Woodbn24	42.32	-90.10	244	287	8.08	-3.40	912
483	Wardsg17	42.32	-89.93	274	251	7.83	-3.63	917
484	Woodbn07	42.33	-90.12	274	198	7.99	-3.73	910
485	Frains Lake	42.33	-83.63	271	198	9.31	-0.90	800
486	MURR6019	42.33	-83.616	271	2336	9.32	-0.87	796
487	BLACKH1	42.333	-95.067	378	343	8.21	-4.30	811
488	FRAN5447	42.333	-83.633	271	1743	9.31	-0.90	800
489	STOCKBRI	42.335	-73.318	86	246	7.94	-1.63	1135
490	NYSU 4	42.34	-79.45	442	994	7.23	-1.67	1124
491	Volo Bog	42.351	-88.184	229	402	8.77	-2.13	884
492	PICK5107	42.367	-83.983	280	2225	8.94	-1.30	814
493	NYSU 5	42.39	-77.48	488	992	6.93	-2.20	879
494	Wintergreen Lake	42.40	-85.383	271	216	9.11	-1.20	905
495	Walden Pond	42.43	-71.33	50	279	9.22	-0.17	1140
496	BLND5188	42.433	-84.017	280	887	8.87	-1.37	805
497	NARR9166	42.45	-84.783	285	614	8.68	-1.53	819
498	WHIT6562	42.45	-83.75	322	514	8.97	-1.27	819
499	Knickerbocker Lake	42.47	-73.68	87	352	8.37	-1.50	997

NAPD Site Code	Site Name	Latitude	Longitude	Elev (m)	Pollen Sum	tave	tdjf	annp
500	Site 82 [Swain]	42.48	-77.57	518	293	6.80	-2.40	890
501	BERRYOND	42.5	-73.317	600	481	5.49	-4.27	1213
502	803	42.5	-72.33	120	513	8.80	-0.90	1106
503	TOMSWAMP	42.517	-72.217	229	465	8.03	-1.70	1144
504	Lyons Pond	42.53	-73.58	190	321	7.93	-1.93	1035
505	Tackawasick Lake	42.53	-73.52	188	369	7.83	-2	1063
506	Houghton Bog	42.542	-78.67	428	1303	7.63	-1.23	1046
507	Elk	42.55	-91.28	335	329	8.25	-4.13	870
508	GUER8240	42.55	-85.417	274	683	8.82	-1.43	912
509	Concord	42.58	-90.95	335	323	8.20	-4.03	886
510	NYSU 7	42.582	-75.440	535	1000	6.03	-3.47	1068
511	HUTH9064	42.583	-86.133	192	339	9.06	-0.73	875
512	TAYL9197	42.583	-84.70	285	327	8.53	-1.67	798
513	SODN6411	42.583	-83.3	297	323	9.05	-0.97	799
514	Site 122 [Swain]	42.60	-74.05	412	403	7.02	-2.93	1091
515	BURDEN	42.60	-73.567	192	638	7.98	-1.93	1031
516	PROT 0	42.617	-78.467	430	1873	7.53	-1.40	994
517	Dickey Valley	42.62	-90.58	305	315	7.93	-4.43	891
518	West Sand Lake Bog	42.633	-73.60	170	391	8.04	-1.90	1014
519	Tennyson	42.65	-90.67	305	293	7.96	-4.43	882
520	Thompsons Lake	42.65	-74.05	387	300	7.03	-3	1080
521	Round Pond	42.65	-73.43	529	344	6.21	-3.67	1151
522	North Pond	42.65	-73.05	586	442	5.50	-4.27	1252
523	NYSU 6	42.68	-76.32	411	993	7.71	-1.63	988
524	Harrison	42.70	-90.55	305	283	7.83	-4.43	876
525	Davitt Pond	42.70	-73.53	380	320	6.94	-3.03	1073
526	Platte Valley	42.72	-90.47	305	357	7.81	-4.23	872
527	WINDSOR	42.746	-72.979	496	163	5.68	-4.13	1241
528	822	42.767	-74.90	378	201	6.83	-2.77	1045
529	Blanch Road	42.77	-89.87	305	311	7.41	-4.53	859
530	69	42.783	-89.20	268	200	7.53	-4.17	850
531	Cox Creek	42.80	-91.38	305	330	8.08	-4.50	844
532	Site 7 [Swain]	42.80	-88.55	259	304	8.13	-3.20	844
533	LIMABOG	42.80	-88.083	238	342	8.16	-2.90	831
534	MULL8325	42.80	-84.883	260	554	8.39	-1.80	816
535	BRYM9010	42.80	-83.80	259	354	8.51	-1.53	784
536	CAMP8330	42.833	-85.467	239	323	8.48	-1.70	906
537	ONTSU 77	42.85	-80.17	183	953	7.93	-1.37	943
538	Hollndal	42.88	-89.88	305	285	7.28	-4.63	850
539	68PMA	42.883	-89.25	262	345	7.53	-4.03	838
540	ROND8338	42.883	-84.45	254	337	8.15	-2	769
541	Koshkonong	42.90	-89.00	237	447	7.84	-3.60	839
542	70PMA	42.90	-89.00	244	335	7.81	-3.70	838
543	Pond Mills Pond	42.917	-81.25	274	556	7.42	-2.13	968
544	ONTSU 31	42.92	-79.13	183	1001	8.43	-0.43	996
545	Site 89 [Swain]	42.93	-73.78	47	304	8.09	-2.23	998
546	C100PTYS	42.933	-88.50	259	290	8.08	-3.30	833
547	60PMA	42.95	-90.45	329	307	7.48	-4.70	843
548	66PMA	42.95	-89.40	290	327	7.29	-4.37	838
549	62PMA	42.967	-90.05	372	308	7.08	-5.40	851
550	67PMA	42.967	-89.25	257	341	7.50	-4	829
551	Sarnia Elk Site Section	42.98	-82.32	185	644	8.28	-1.17	843
552	Roberts Creek	42.986	-91.5	308	325	8.03	-4.33	847

* Indicates sampled used for Discriminant Analysis

Abbreviations used:

Elev = Elevation

Tave = Average annual Temperature

Tdjf = Mean Annual temperature for December, January and February

Annp= Total Annual Precipitation

APPENDIX 4

Total palynological counts per pit

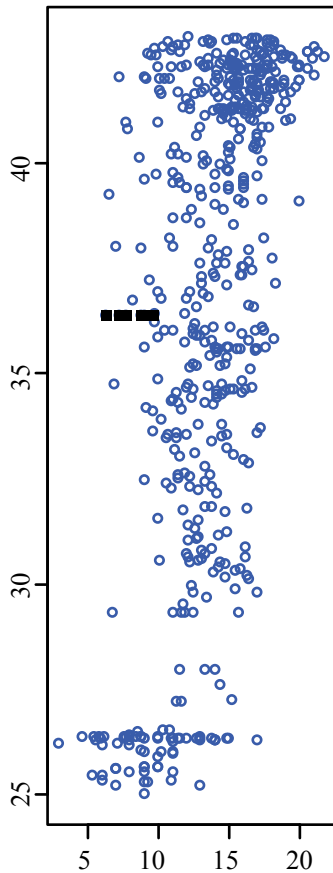
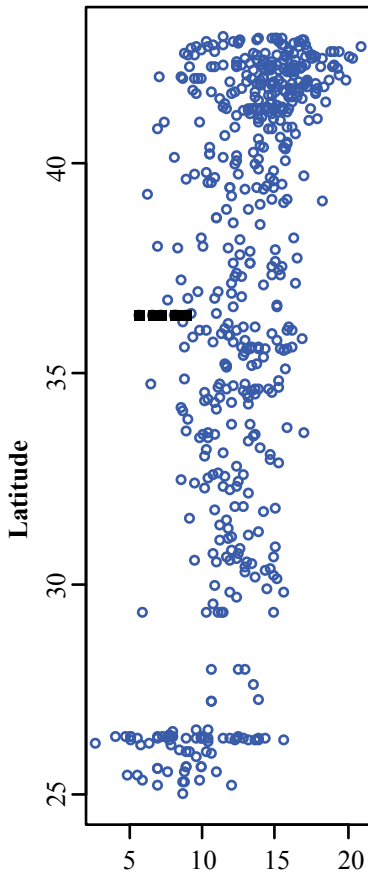
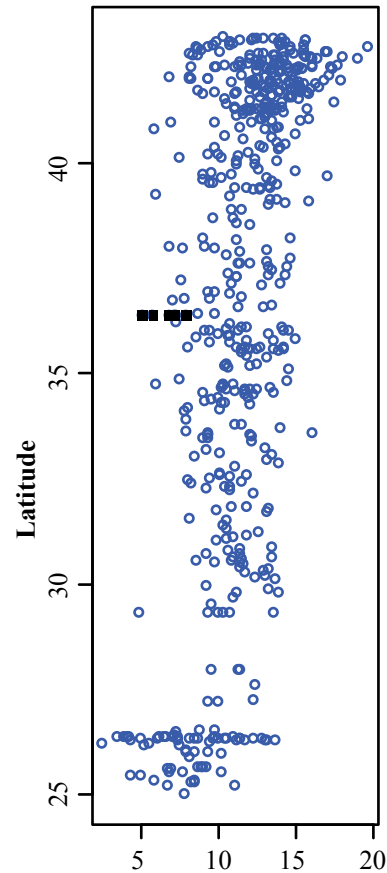
Family/ Group	Genus	Palynomorph Identification	Bear	Elephant	Gator	Rhino	Mid	East
			Pit	Pit	Pit	Pit	Pit	Pit
Pina*	<i>Abies</i>	<i>Abies sp.</i>	12	2	15	20	0	14
Sapinda*	<i>Acer</i>	<i>Acer "leucoderme"</i>	1	0	0	0	0	0
Chenopodia/Amarantha*		<i>Amarantha* sp.</i>	2	4	5	0	2	0
Astera*	<i>Ambrosia</i>	<i>Ambrosia sp.</i>	34	17	14	6	39	3
cf. Anacardia*		<i>Anacardia* type.</i>	1	2	1	1	0	0
Astera*		<i>Astera* "minimus"</i>	16	0	0	0	0	0
Astera*		<i>Astera* "pachidermatus"</i>	0	0	0	0	0	1
Astera*		<i>Astera*-32</i>	17	16	8	6	20	13
-		<i>Bacutricolpites "capitatus"</i>	1	0	1	0	0	0
Betula*	<i>Betula</i>	<i>Betula sp.</i>	0	0	13	16	0	0
Brassica*	<i>Brassica</i>	<i>Brassica* type</i>	0	0	0	1	0	1
Juglanda*	<i>Carya</i>	<i>Carya sp.</i>	1669	1178	433	326	174	126
Faga*	<i>Castanea</i>	<i>Castanea</i>	2	0	0	0	0	0
Euphorbia*		<i>cf. Croton "major"</i>	0	1	0	0	0	0
Euphorbia*	<i>cf. Croton</i>	<i>cf. Croton sp.</i>	0	0	0	0	1	0
Malva*	<i>cf. Ipomea</i>	<i>cf. Ipomea sp.</i>	3	1	1	0	0	1
Chenopodia*/Amarantha*		<i>Chenopodia* "reticulate"</i>	0	0	0	1	0	0
Chenopodia*/Amarantha*		<i>Chenopodia* type</i>	1	2	2	1	1	0
Algae		<i>Chomotriletes sp.</i>	1	0	1	0	4	0
Umbellifera*/Apia*		<i>Cicuta type sp.</i>	0	0	0	0	1	0
-		<i>Clavatricolpites "baculatus"</i>	1	1	1	0	0	0

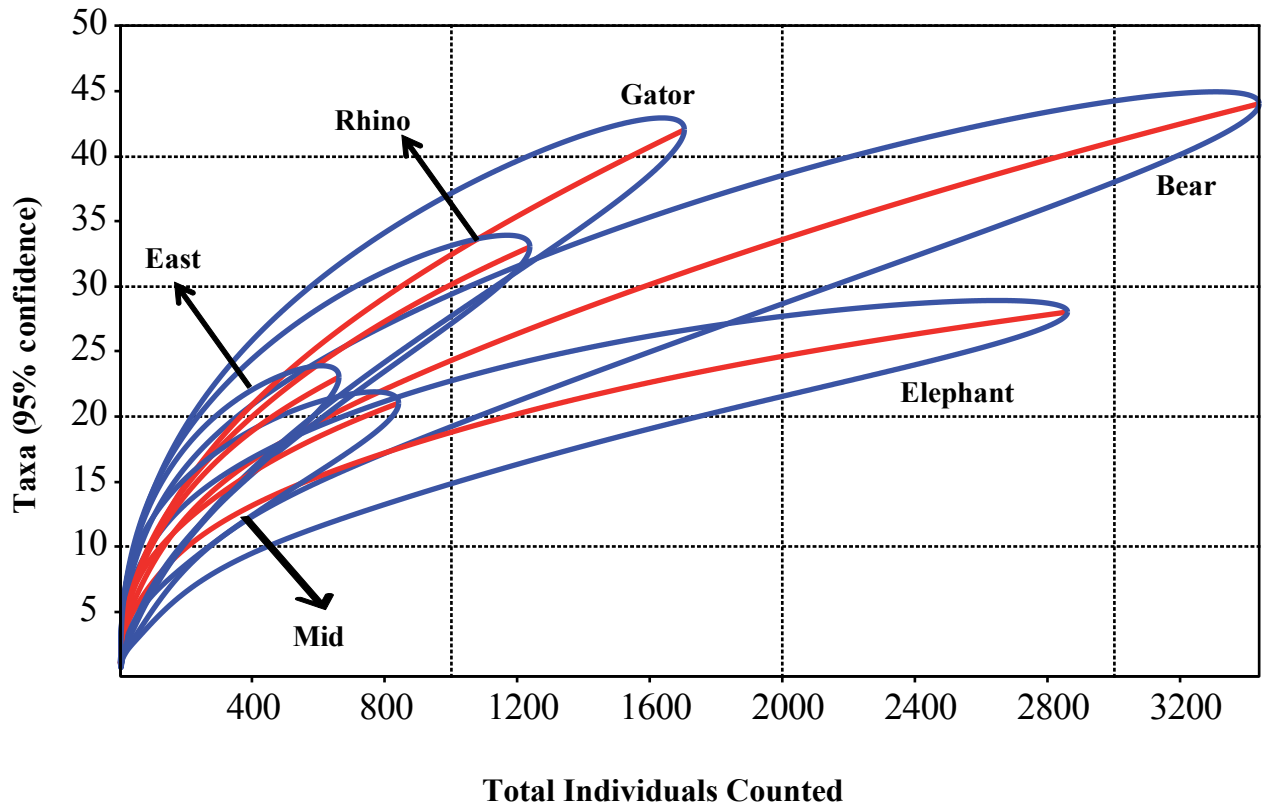
Family/ Group	Genus	Palynomorph Identification	Bear	Elephant	Gator	Rhino	Mid	East
			Pit	Pit	Pit	Pit	Pit	Pit
Malva*		<i>Composita* "puntus"</i>	0	0	0	0	3	0
Umbellifera*/Apia*		<i>Conium type sp.</i>	0	4	0	0	1	2
Betula*	<i>Corylus</i>	<i>Corylus</i>	0	0	1	0	0	0
Lycopodia*	<i>Lycopodium?</i>	<i>Lycopodium?</i>	0	0	0	1	0	0
Elaeagna*	<i>Elaeagnus sp.</i>	<i>Elaeagnus sp.</i>	1	0	0	0	0	0
Euphorbia*	<i>Euphorbia type</i>	<i>Euphorbia sp.</i>	0	38	0	2	0	1
Faga*	<i>Fagus</i>	<i>Fagus</i>	0	0	1	0	0	0
Ophioglossa*	<i>Ophioglossum?</i>	<i>Ophioglossa* type</i>	0	0	1	0	0	0
Olea*	<i>Fraxinus</i>	<i>Fraxinus sp.</i>	0	0	1	1	0	1
Aquifolia*	<i>Ilex</i>	<i>Ilex vomitaria</i>	0	0	1	0	0	1
Juglanda*	<i>Juglans</i>	<i>Juglans nigra</i>	1	0	1	0	0	0
Fern		<i>Laevigatosporites "granulatus"</i>	1	1	0	0	0	0
Linna*	<i>Linum</i>	<i>Linum sp.</i>	1	0	0	0	1	0
Hammamelida*	<i>Liquidambar sp.</i>	<i>Liquidambar styraciflua</i>	1	0	0	0	0	0
Lycopodia*	<i>Lycopodium?</i>	<i>Lycopodium? "zlivisporoides"</i>	0	0	0	0	0	1
Onagra*		Onagra* type	2	1	0	0	0	0
Betula*	<i>Ostrya/Carpinus</i>	<i>Ostrya/Carpinus</i>	1	0	1	1	0	0
Pina*	<i>Pinus sp.</i>	<i>Pinus sp.</i>	437	249	236	169	243	86
Poa*	Poa* type	Poa* type	7	0	3	3	2	4
-		<i>Psilatricolporites "cornudos"</i>	1	0	0	0	0	0
-		<i>Psilatricolporites "ecuatorialensis"</i>	0	1	0	0	0	0
-		<i>Psilatricolporites "gruesus"</i>	2	0	2	0	0	0
-		<i>Psilatricolporites "pachyexinatus"</i>	0	0	0	0	2	0
Bogus sp.		<i>Psilatricolporites sp.</i>	1	0	0	0	0	0

Family/ Group	Genus	Palynomorph Identification	Bear	Elephant	Gator	Rhino	Mid	East
			Pit	Pit	Pit	Pit	Pit	Pit
Juglanda*	<i>Pterocarya</i>	<i>Pterocarya</i> sp.	12	3	8	2	9	1
Faga*	<i>Quercus</i>	<i>Quercus</i> sp.	1074	1268	847	583	306	369
Bogus sp.		<i>Retimonocolpites</i> sp.	1	0	0	0	0	0
-		<i>Retistephanocolpites</i> "longcolumelatus"	0	1	0	0	0	0
-		<i>Retitrescolpites</i> "curvimuratus"	1	0	0	0	0	0
-		<i>Retitrescolpites</i> "grandis"	0	0	2	0	0	0
-		<i>Retitrescolpites?</i> "magnificus"	0	0	0	0	1	0
-		<i>Retitricolpites</i> "cadenatus"	2	0	0	1	0	0
-		<i>Retitricolpites</i> "clasicus"	3	0	0	0	0	0
-		<i>Retitricolporites</i> "anacardius"	0	0	1	2	0	0
Olea*/ Hammamelida*?		<i>Retitricolporites</i> "bacupilatus"	0	0	1	0	1	0
-		<i>Retitricolporites</i> "bonitus"	0	0	1	0	0	0
-		<i>Retitricolporites</i> "celastrus"	2	0	0	2	0	0
-	<i>Ciryla</i> type	<i>Retitricolporites</i> "clasicyrilicus"	1	0	0	0	0	0
-		<i>Retitricolporites</i> "costimarcadus"	0	0	0	1	0	0
-		<i>Retitricolporites</i> "extranhus"	0	0	1	3	0	0
-		<i>Retitricolporites</i> "gnomus"	1	0	3	0	0	0
-		<i>Retitricolporites</i> "heterogeneos"	1	0	0	0	0	0
-		<i>Retitricolporites</i> "heteroreticulatus"	0	0	0	1	0	0
-		<i>Retitricolporites</i> "luminidites"	26	0	0	0	0	3
Malva*- Bombacoide?		<i>Retitricolporites</i> "malvoides"	0	0	0	1	0	0
-		<i>Retitricolporites</i> "oblatus"	0	3	0	0	0	0
-		<i>Retitricolporites</i> "prolatus-enanus"	1	0	0	0	0	0
-		<i>Retitricolporites</i> "verruoblatus"	0	0	1	0	0	v0

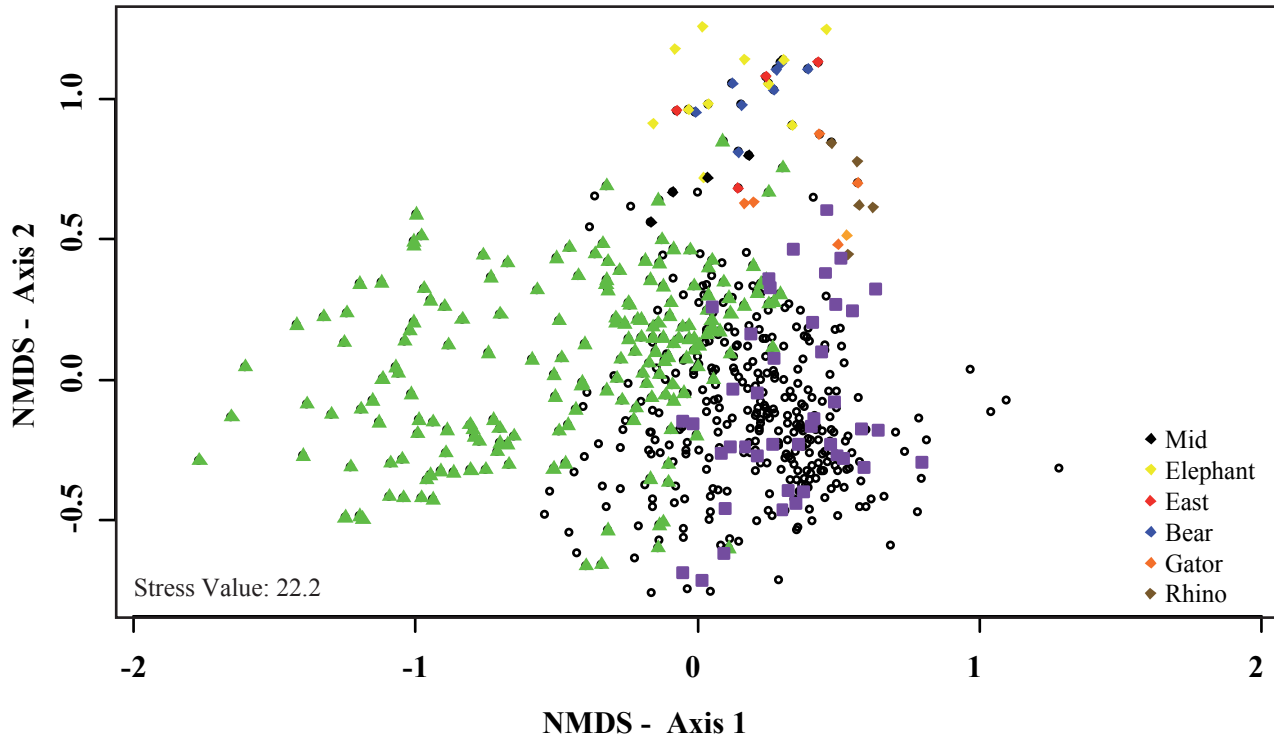
Family/ Group	Genus	Palynomorph Identification	Bear	Elephant	Gator	Rhino	Mid	East
			Pit	Pit	Pit	Pit	Pit	Pit
Anacardia*		<i>Rhus sp.</i>	0	0	0	0	0	1
Fungi		<i>Rugosporopollenites "striatus"</i>	22	13	5	1	0	2
Fungi		<i>Rugotricolpites-52</i>	1	3	2	0	0	0
Ruta*		Ruta*	0	0	1	0	0	0
Taxa*	<i>Taxus sp.</i>	<i>Taxus sp.</i>	4	0	0	0	0	0
Taxodia*/ Cupressa*	TCT	TCT	0	0	1	0	0	0
Malva*	<i>Tilia</i>	<i>Tilia "americanus"</i>	0	0	4	10	0	0
Malva*	<i>Tilia</i>	<i>Tilia type</i>	0	1	1	2	0	0
Pina*	<i>Tsuga canadiensis</i>	<i>Tsuga canadiensis</i>	0	0	36	40	0	18
Pina*	<i>Tsuga</i>	<i>Tsuga type sp.</i>	0	0	0	1	0	0
Ulma*	<i>Ulmus</i>	<i>Ulmus rubra</i>	0	1	0	0	0	0
Ulma*	<i>Ulmus sp.</i>	<i>Ulmus sp.</i>	31	23	5	3	24	4
Bogus sp.		<i>Unidentified pollen</i>	35	20	34	21	4	4
-		<i>Verrutricolpites "extraverrucatus"</i>	0	0	0	1	0	0
Fern		<i>Verrutriteles "major"</i>	0	1	0	0	0	0
Fern		<i>Verrutriteles "minimus"</i>	0	0	0	0	1	0
Caprifolia*	<i>Viburnum</i>	<i>Viburnum type sp.</i>	0	0	4	6	0	3
Astera*	<i>Xanthium sp.</i>	<i>Xanthium sp.</i>	1	3	0	0	0	0

*ceae

Rarefaction 200 cutoff**Number of Species****Rarefaction 150 cutoff****Number of Species****Rarefaction 100 cutoff****Number of Species****■ Composite samples from the six tested pits**



Non-Metric Multidimensional Analysis



NMDS ordination of modern pollen and GFS samples color code by studied pits

Ordination based on degree of similarity of floral composition at genus level.

Axis 1 is controlled by minimum winter temperatures (warmer temperatures to left and cooler temperatures to right).

▲ = samples located within *Alligator mississippiensis* range

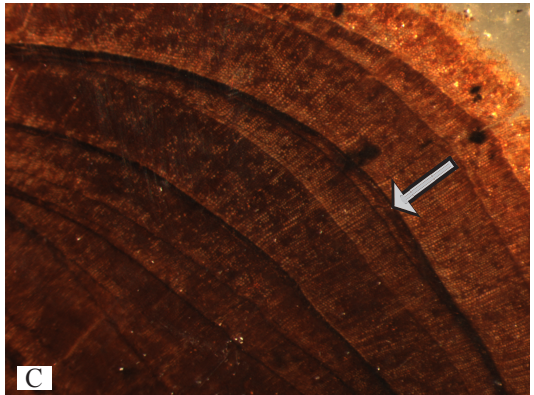
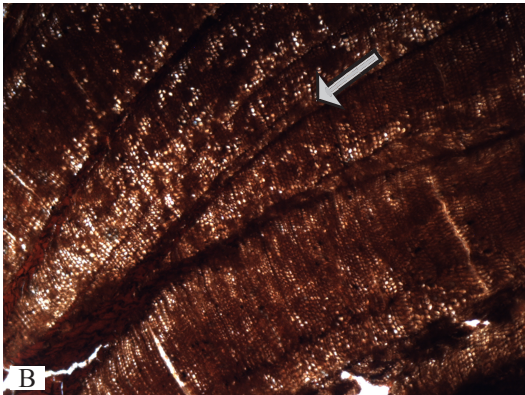
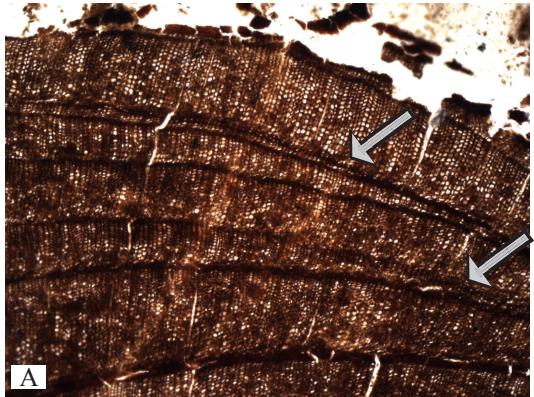
■ = samples located within Appalachian Mountains

False growth rings observed in wood associated with cedars recovered from the GFS.

A. Sample: GFS-W.R. #1

B. Sample: GFS-W.R. #1

C. Sample: GFS-W.R. #2 (107.5)



APPENDIX 6

Palynological characterization of GFS and previous Mio-Pliocene sites studied in eastern North America

Section	Region	Location	Stratigraphic Unit	Age	Important Taxa	Inferred Climate	Environment	Author
Peace Creek	SE	Central Florida	Hawthorn Group	Late Pliocene < 2.8 Mya	P, Qs, My, Sa, I, Sc, G, As, Cc	Similar to present day	Shallow freshwater wetland	Hansen et al., 2001
Mobile	SE	GCP of Alabama	Citronelle Formation	Pliocene 3.4 to 2.7 Mya	P,Qs, Cy, T, U, Fr, Cc	Similar to present day	Low energy, brackish water, coastal deposition	Stults et al., 2002; Stults et al., 2010
Ohoopsee River	SE	Emanuel County Georgia	Altamaha Formation.	Middle Miocene, Serravalian	P, Qs, T, S, U, N, Cy, As, Gr	NA	Freshwater wetlands, swamp/marsh	Rich et al., 2002
Pipe Creek Sinkhole	NE	Grant County Indiana	-	Early Pliocene ~5 Mya	P, Jg, As	Wetter than present day (?)	Continental, sediments filling a karstic structure	Shunk et al., 2009

Section	Region	Location	Stratigraphic Unit	Age	Important Taxa	Inferred Climate	Environment	Author
Yorktown	NE	Cape Charles, S Delmarva Peninsula	Yorktown Formation	Early - Middle Pliocene	Pi, Ts, Qs, C, P, Be, N, T	Cooler than Miocene, temperate, cooling	Very shallow water	Sirkin and Owens, 1998
Yadkin Pit	NE	Virginia	Yorktown Formation	Early Pliocene 2.4 - 4.8 Mya	P, C, Sc, Pc, Ts, Dy, Fmf	Terrestrial near shoreline similar to present	Shallow marine	Groot, 1991
Southern Delaware	NE	MACP	Bethany-Lower Beaverdam Formation	Late Miocene- Early Pliocene	Qs, C, TCT, T, Pc, Sc, L, Cy, P, rare Ts	Warm temperate to subtropical, moist climate similar to present Southern ACP	Deltaic to fluvial deltaic	Groot, 1991
Brandywine Site	NE	MACP	Brandywine Formation	Late Miocene	Qs, C, TCT, T, Pc, Sc, L, My, N, Cy, Ix	Warm temperate to subtropical, moist climate similar to present Southern ACP	Fluvial origin	Groot, 1991

Section	Region	Location	Stratigraphic Unit	Age	Important Taxa	Inferred Climate	Environment	Author
Multiple sites	NE	MACP	Eastover Formation	Late Miocene	Qs, C, TCT, T, Pc, Sc, L, Cy, As	Warm temperate to subtropical, moist climate similar to present Southern ACP	Transgressive, fresh water, marsh	Groot, 1991
Core PC43 Core Qi11a	NE	Delaware	Beaverdam Formation	Pliocene 2 – 5 Mya	Qs, C, TCT, T, Eg, Cy, U, Pc, Sc, Ab,	Warm temperate during Early Pliocene. Temperate during Late Pliocene	Fluvial during Early Pliocene and estuarine during Late Pliocene	Groot and Jordan, 1999
Sandy Beaverdam Fm	NE	Selbyville, Delmarva Peninsula	Beaverdam Formation	Late Pliocene	Fg, P, Be, TCT, Cy, Qs, Al	Warm and wet	Marginal marine	Sirkin and Owens, 1998
Chesapeake Group	NE	Delmarva Peninsula	Pensauken Formation	Late Miocene	Qs, TCT, Pc, N, Eg, P, Be, Gr, As	Warm temperate, warmer than Early-Middle Miocene	Marine deltaic	Sirkin and Owens, 1998

Section	Region	Location	Stratigraphic Unit	Age	Important Taxa	Inferred Climate	Environment	Author
Pocomoke Aquifer, Chesapeake Group	NE	Delmarva Peninsula	Pocomoke Beds	Late Miocene	Qs, P, C, Al, Ab, Fr, My, Ct	Warm temperate, warmer than Early-Middle Miocene, wetter (?)	Marine deltaic	Sirkin and Owens, 1998
Manokin Aquifer, Chesapeake Group	NE	Delmarva Peninsula	Manokin Beds	late Middle Miocene	P, Qs, C, Gr, As, Cc, N, U, Pc, L, T, Eg, Pi, Ts	Temperate, Colder than present (?)	Marine deltaic	Sirkin and Owens, 1998
Legler Lignite	NE	New Jersey	Cohansey Formation	Middle Miocene 11 Mya	Qs, Go, Ix, Ct, N, P, As	More humid with higher winter temperatures, similar to GCP	Fluvial with periodic estuarine influence, brackish waters	Rachele, 1976; Greller and Rachele, 1983
Brandon Lignite	NE	Brandon, Vermont	Brandon Lignite	middle Early Miocene	Eg, Qs, Ca, P, Ix, Go, N, U, V, Dy	Warm temperate	Peat within a forested swamp	Traverse, 1955; Traverse, 1994

Section	Region	Location	Stratigraphic Unit	Age	Important Taxa	Inferred Climate	Environment	Author
Pollack Farm	NE	Cheswold, Delaware	Calvert Formation	Early Miocene	Qs, P, C, L, Cy, TCT, Dy, Fmf	Temperate to warm temperate, similar to current GCP	Estuarine	Groot, 1998

Abbreviations used:

NA = No Information Available	Be = <i>Betula</i>	I = <i>Isoëtes</i>	T = <i>Taxodium</i>
SE = Southeastern Region	C = <i>Carya</i>	L = <i>Liquidambar</i>	U = <i>Ulmus</i>
NE = Northeastern Region	Ca = <i>Castanea</i>	My = <i>Myrica</i>	V = <i>Vitis</i>
GCP = Gulf Coastal Plain	Ct = <i>Cyathea</i>	N = <i>Nyssa</i>	As = Asteraceae
ACP = Atlantic Coastal Plain	Cy = <i>Cyrilla</i>	P = <i>Pinus</i>	Cc = Cyperaceae
MACP = Mid Atlantic Coastal Plain	Dy = Dynocysts	Pi = <i>Picea</i>	Fg = Fagaceae ind
	Eg = <i>Engelhardtia</i>	Pc = <i>Pterocarya</i>	Jg = Juglandaceae
	Fmf = Foraminifera	Qs = <i>Quercus</i>	Gr = Poaceae
	Fr = <i>Fraxinus</i>	S = <i>Sphagnum</i>	TCT = Taxaceae,
Ab = <i>Abies</i>	Go = <i>Gordonia</i>	Sa = <i>Saggitaria</i>	Cupressaceae, Taxodiaceae
Al = <i>Alnus</i>	Ix = <i>Illex</i>	Sc = <i>Sciadopitys</i>	Ts = <i>Tsuga</i>

NMDS Analysis of Eastern North American Sections

